Math Problem

To solve for f(-2 - g(3)) , we first need to calculate g(3) .

Step 1: Calculate g(3)

The function g(x) is given by:

$$g(x) = x^2 - 3$$

Substituting x = 3 :

$$g(3) = 3^2 - 3 = 9 - 3 = 6$$

Step 2: Calculate -2 - g(3)

Now we can calculate -2 - g(3) :

$$-2 - g(3) = -2 - 6 = -8$$

Step 3: Calculate f(-8)

Now we need to find f(-8) using the function f(x) , which is defined as:

$$f(x) = \frac{3}{4}x + 10$$

Substituting x = -8 :

$$f(-8) = \frac{3}{4}(-8) + 10$$

Calculating \frac{3}{4}(-8) :

$$\frac{3}{4}(-8) = -6$$

Now substitute this back into the equation for f(-8) :

$$f(-8) = -6 + 10 = 4$$

Final Answer

Thus, the value of f(-2 - g(3)) is:

$$\boxed{4}$$